

REMARKSI. INTRODUCTION

In response to the Office Action dated November 29, 2005, claims 1, 9, and 17 have been amended. Claims 1-24 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. REAL PARTY IN INTEREST

The real party in interest is Autodesk, Inc., the assignee of the present application.

III. STATUS OF CLAIMS

Claims 1-24 stand rejected.

IV. STATUS OF AMENDMENTS

Applicant's attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for patentability or to distinguish the claims over the prior art.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 9, and 17 are generally directed to annotating a video clip/sequence of frames (see page 1, lines 1-5). A computer program obtains a video clip and annotation information that identifies a particular frame in the video clip, an annotation, and a location on the particular frame to display the annotation (see page 3, lines 5-7; page 5, lines 9-11; page 7, lines 8-10; page 9, lines 17-20; FIG. 2). The computer program proceeds to display the sequence of frames and then determines (automatically) when the particular frame is displayed at which point the program automatically pauses the display (see page 3, lines 8-9; page 5, lines 11-13; page 9, lines 22-25; FIG. 2; page 10, lines 10-11; FIG. 3C). The annotation is then displayed at the specified location (see page 3, lines 8-9; page 5, lines 11-13; page 5, lines 25-26; FIG. 2; page 10, lines 10-13; FIG. 3C). The video clip remains paused until the user elects to proceed at which point the sequence of frames then continues to display (see page 9, line 26-page 10, line 2; FIG. 2; FIGS. 3A-3E; page 10, lines 13-15).

Dependent claims 2, 10, and 18 provide that the annotation is text (see page 7, lines 10-11; page 9, lines 10-11; FIG. 3C).

Dependent claims 3, 11, and 19 provide that the annotation is an arrow (see page 7, lines 10-15; FIG. 3C).

Dependent claims 4, 12, and 20 provide that the annotation is a primitive shape (see page 7, lines 10-15; FIG. 3C).

Dependent claims 5, 13, and 21 provide that the sequence of frames is an animation (see page 2, lines 21-22; see page 6, lines 15-17; FIGS. 3A-3E).

Dependent claims 6, 15, and 22 provide that the sequence of frames is a video (see page 2, lines 21-22; and page 6, lines 15-17).

Dependent claims 7, 16, and 23 provide that the annotation information is defined based on an XML schema (see page 3, lines 10-15; page 8, line 1-page 9, line 15).

Dependent claims 8, 17, and 24 provide that the display of the annotation is an overlaying of the annotation on the paused frame at the specified location (see page 3, lines 8-9; page 5, lines 11-13; page 7, lines 2-3; FIG. 2 and FIGS. 3A-3E).

VI. ISSUES TO BE REVIEWED

Claims 1-24 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention.

Claims 1-6, 8-14, 16-22, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wistendahl et al. US005708845A (Wistendahl) in view of Russel, Jr. et al. US005526478A (Russel).

Claims 7, 15, and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wistendahl in view of Russel and further in view of Gupta et al. US006484156B1 (Gupta).

Applicant requests review and reconsideration of all of these rejections.

VII. ARGUMENT

A. Claims 1-24 distinctly and clearly claim the subject matter that Applicant regards as the invention.

In paragraph (4) of the Office Action, claims 1-24 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Office Action asserts:

It is unclear what Applicant's intended are, for example, if the action is determining when to stop, then stop (e.g., the action is triggered by users interventions) It is unclear what Applicant's intended the processing steps of the claims are (e.g., automatically??).

Applicants respectfully traverse the rejections. The claims are very clear. First, the claims explicitly provide for determining when the identified frame is displayed. The identified frame is specified previously in the claim. Thus, the claim step provides for determining when the identified frame is displayed. The claim then provides for automatically pausing the display of the sequence of frames at the identified frame. Accordingly, when the identified frame is displayed, the display of the sequence of frames is automatically paused. The claims are explicit and clear in their intent. Contrary to that asserted in the Office Action, there is no determination of when to stop – instead, the claims provide of determining when a particular identified frame is displayed. Secondly, the sequence of frames that includes the identified frame, is automatically paused at the identified frame. There is no user interaction. The claims provide for automatically pausing the display. In this regard, if user interaction were required to stop/pause the claims, the pausing would not be automatic but would require user interaction. Accordingly, Applicants submit that the claims are clear and not indefinite.

Further, the broadest reasonable interpretation taken by the Examiner is the interpretation that was intended by the claims. Accordingly, there is no indefiniteness.

Nonetheless, to specify that the identified frame is within the sequence of frames, Applicants have amended the claims accordingly.

In view of the above, Applicants respectfully request withdrawal of the rejections.

B. Independent claims 1, 9, and 17 Are Patentable Over the Cited Art

In paragraphs (5)-(6) of the Office Action, claims 1-6, 8-14, 16-22, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wistendahl et al., U.S. 5,708,845 (Wistendahl) in view of Russell, Jr. et al., U.S. 5,526,478 (Russell).

Specifically, the independent claims were rejected as follows:

As to independent claim 1, (a) obtaining a sequence of frames to be consecutively displayed on a display device, wherein a frame comprises one or more images (Wistendahl '845 at col. 4, line 10 through col. 5, line 45, also see Fig. 1, discloses a system for editing still and motion images, compositing multiple images, text, and sound tracks together, animating and morphing images, compressing multimedia files for storage or transmission, wherein the original media content (item 10), such as a movie, video program, or live television program captured by a video camera, etc., is digitized via an analog-to-digital (A/D) converter (item 12) into digital data representing a series of display frames $F_i, F_{i+2}, F_{i+3}, \dots$, in a time sequence t for display on a display screen),

(i) an identification of a frame (Wistendahl '845 at col. 4, line 10 through col. 5, line 45, also see Fig. 1, discloses a system for editing still and motion images, compositing multiple images, text, and sound tracks together, animating and morphing images, compressing multimedia files for storage or transmission, wherein the original media content (item 10), such as a movie, video program, or live television program captured by a video camera, etc., is digitized via an analog-to-digital (A/D) converter (item 12) into digital data representing a series of display frames $F_i, F_{i+2}, F_{i+3}, \dots$, in a time sequence t for display on a display screen. Each frame has a frame address $i, i+1, i+2, \dots$ corresponding to its unique time position in the sequence, and is composed of an array of pixels p_i uniquely defined by location coordinates represented by j rows and k columns in the display area of each frame),

(c) consecutively displaying one or more of the sequence of frames (Wistendahl '845 at col. 4, line 10 through col. 5, line 45, also see Fig. 1, discloses a system for editing still and motion images, compositing multiple images, text, and sound tracks together, animating and morphing images, compressing multimedia files for storage or transmission, wherein the original media content (item 10), such as a movie, video program, or live television program captured by a video camera, etc., is digitized via an analog-to-digital (A/D) converter (item 12) into digital data representing a series of display frames $F_i, F_{i+2}, F_{i+3}, \dots$, in a time sequence t for display on a display screen),

(d) determining when the identified frame is displayed, and automatically pausing the display of the sequence of frames at the identified frame (Wistendahl '845 at col. 4, line 10 through col. 5, line 45, also see Fig. 1, discloses a system for editing still and motion images, compositing multiple images, text, and sound tracks together, animating and morphing images, compressing multimedia files for storage or transmission, wherein the original media content (item 10), such as a movie, video program, or live television program captured by a video camera, etc., is digitized via an analog-to-digital (A/D) converter (item 12) into digital data representing a series of display frames $F_i, F_{i+2}, F_{i+3}, \dots$, in a time sequence t for display on a display screen. Each frame has a frame address $i, i+1, i+2, \dots$ corresponding to its unique time position in the sequence, and is composed of an array of pixels p_i uniquely defined by location coordinates represented by j rows and k columns in the display area of each frame) Examiner read the above in the broadest reasonable interpretation, wherein determining when the identified frame is displayed would have been an obvious variant of Each frame has a frame address $i, i+1, i+2, \dots$ corresponding to its unique time position in the sequence, to a person of ordinary skill in the art at the time the invention was made,

also (Wistendahl '845 at col. 9, line 15 through col. 12, line 10, discloses an authoring and mapping of "Hot Spot" As N Data, wherein a display frame of the media content is called up on the editing subsystem, and motion tracking techniques are adapted to automate the generation of N Data for objects. First, a display frame of the media content is called up on the editing subsystem, marks its position as it appears in a first or "key" frame. The outline data, position, and frame address are saved

as N Data. Then, a motion tracking tool is used to detect the image of the object as it moves across subsequent frames, until a last frame in which the object is detected is reached) Examiner read the above in the broadest reasonable interpretation, wherein automatically pausing the display of the sequence of frames at the identified frame would have been an obvious variant of Each frame has a frame address $i, i+1, i+2, \dots$ corresponding to its unique time position in the sequence, and a display frame of the media content is called up on the editing subsystem, and motion tracking techniques are adapted to automate the generation moves across subsequent frames, until a last frame in which the object is detected is reached, to a person of ordinary skill in the art at the time the invention was made,

(f) continue displaying the sequence of frames subsequent to the identified frame when a user elects to proceed (Wistendahl '845 at col. 9, line 15 through col. 12, line 10, discloses an authoring and mapping of "Hot Spot" As N Data, wherein a display frame of the media content is called up on the editing subsystem, and motion tracking techniques are adapted to automate the generation of N Data for objects. First, a display frame of the media content is called upon the editing subsystem, marks its position as it appears in a first or "key" frame. The outline data, position, and frame address are saved as N Data. Then, a motion tracking tool is used to detect the image of the object as it moves across subsequent frames, until a last frame in which the object is detected is reached) Examiner read the above in the broadest reasonable interpretation, wherein when a user elects to proceed would have been an obvious variant of authoring and mapping of "Hot Spot" As N Data, wherein a display frame of the media content is called up on the editing subsystem, to a person of ordinary skill in the art at the time the invention was made.

Wistendahl '845 does not explicitly teach, (b) obtaining annotation information, wherein the annotation information comprises: (ii) an annotation, however (Russell '478 at col. 3, line 30 through col. 4, line 35, also see Fig. 2-7, discloses an annotation system, wherein the multimedia information can include visual image, video, etc on a computer display and/or annotation interface, and (iii) a location on the identified frame to display the annotation, e) displaying the annotation at the location on the identified frame, however (Russell '478 at col. 3, line 30 through col. 4, line 35, also see Fig. 2-7, discloses an annotation interface, wherein the multimedia information can include graphic, animation visual image, video, etc on a computer display, also includes Graphics subsystem item 30 processing elements for processing graphics data that are to be displayed on display item 22, that includes four pipelined subsystems: (1) a geometry subsystem, (2) a scan conversion subsystem, (3) a raster subsystem, and (4) a display subsystem. When a 3-D model needs to be displayed on display. CPU 21 accesses system RAM and ROM 25a and 25b and mass storage device 29 for data relating to the visual description of the 3-D model. The visual description of the 3-D model is read and stored in computer system 20) Examiner read the above in the broadest reasonable interpretation, wherein the identified frame to display the annotation would have been an obvious variant of A frame buffer includes four pipelined subsystems: (1) a geometry subsystem, (2) a scan conversion subsystem, (3) a raster subsystem, and (4) a display subsystem is connected to bus and stores the information to be displayed on display, to a person of ordinary skill in the art at the time the invention was made.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Wistendahl '845, discloses an interactive digital media (IDM) program has Frame Data for the media content and object mapping data (N Data) representing the frame addresses and display location coordinates for objects appearing in the media content, to include a means of obtaining annotation information, wherein the annotation information comprises: an annotation, a location on the identified frame to display the annotation of Russell '478. One of ordinary skill in the art would have been motivated to perform such a modification for enabling an annotating interface, wherein viewers capable of displaying 3-D model at various locations to exchange information with respect to the 3-D model in a consistent environment (as taught by Russell '478 at col. 1, lines 45-60).

As to independent claims 9 and 17, incorporate substantially similar subject matter as cited in claim 1 above, and are similarly rejected along the same rationale.

Applicant traverses the above rejections for one or more of the following reasons:

- (1) Wistendahl, Russell, and Gupta do not teach, disclose or suggest automatically pausing a display of a sequence of frames at a particular identified frame;
- (2) Wistendahl, Russell, and Gupta do not teach, disclose or suggest displaying an annotation at a location on the identified frame when the sequence has been paused; and
- (3) Wistendahl, Russell, and Gupta do not teach, disclose or suggest continuing the display of the sequence of frames when the user elects to proceed.

As described above, the present claims provide for the ability to annotate a sequence of frames. To annotate the frames, a particular frame is identified and an annotation is specified. The sequence of frames is displayed. However, when the particular identified frame is displayed, the sequence is paused. While the sequence is paused, the annotation is displayed at a particular identified location on the frame. The user then determines when to continue displaying the sequence of frames.

To teach the determination of when an identified frame is displayed and the automatic pausing of the display, the Office Action relies on Wistendahl col. 4, line 10-col. 5, line 45 and Fig. 1. Applicants respectfully disagree with such an assertion and reliance. Applicants submit that such a cited portion and the remainder of Wistendahl actually teach away from the claimed limitations. As specified in Wistendahl, hot spots specify display location coordinates for selected objects within a frame or series of frames (see col. 4, lines 60-65). When media content is played, the user can select a "hot spot" appearing in a display to trigger further actions (see col. 5, lines 7-9).

However, contrary to that asserted in the Office Action, Wistendahl completely fails to even remotely allude to pausing the display of a sequence of frames at a particular frame. In fact, Wistendahl teaches away from such an implementation. For example, in col. 8, lines 38-54, Wistendahl describes that as a movie runs, the user can point a remote control pointer to a designated actor or object appearing on the television display and click on the desired object. In response, if a hot spot was clicked on, the receiving box executes a response programmed for that hotspot. Thus, rather than pausing the display or automatically pausing a display, the user merely selects a hot spot that while the movie is continuously displayed.

In col. 8, lines 55-col. 9, line 3, Wistendahl describes how such a programmed response may process a pop-up window, overly display, etc., in conjunction with the movie. Thus, rather than

automatically pausing a display when a particular frame is identified and displaying an annotation, while the sequence is paused, at a particular location, Wistendahl teaches playing a movie and if a user selects a hotspot, taking some action. There is no automated pausing whatsoever.

The Office Action asserts that col. 9, line 15-col. 12, line 10 discloses such an automated pausing and display. Applicants respectfully traverse such an assertion. This portion of text describes how to author and define where a particular hot spot is located. Wistendahl describes the use of motion tracking to track the movement of an object across multiple frames so that the hot spot can move with the object. However, such a teaching still completely fails to teach the automated pausing of a display when a particular identified frame is displayed. Instead, this portion of Wistendahl merely teaches how to define which frame(s) have a hot spot. Such an authoring tool does not automatically pause a display in any way shape or form. Further, the description of the authoring completely fails to describe what happens during the playback of the sequence. Such a playback situation is described above and actually teaches away from the automated pausing of a sequence of frames as claimed. In addition, the mere use of motion tracking to alter the location of a hot spot shows that the sequence is not paused but is continuously moving. Accordingly, such motion tracking again teaches away from the presently claimed limitations.

The Office Action then asserts that the continued display based on user election is taught by Wistendahl's motion tracking. Applicants again traverse such an assertion. The motion tracking fails to describe or suggest any pausing whatsoever. Without describing the pausing of a display, Wistendahl cannot possibly teach the continued display of the sequence when a user elects to proceed.

The Office Action states that read in the broadest reasonable interpretation, a user electing to proceed would be an obvious variant of authoring and mapping of a hot spot as N data when a display frame of media content is called up on the editing system. Applicants respectfully disagree and traverse such a suggestion. Again, the motion tracking fails to describe any resumption or continued display of frames. Instead, it merely tracks a hotspot movement across various frames. There is no pausing and not continued display based on a user election to proceed. To merely assert that such a claimed limitation would be an "obvious variant" is wholly without merit. Under MPEP §2142 and 2143.03 "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580

(CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." To merely gloss over the specifically claimed limitations and state that it would be an obvious variant is ignoring the context and express limitations of the claims. In this regard, the Office Action has failed to establish a *prima facie* case of obviousness and is in clear error.

In addition, Applicants note that there are specific advantages provided by the present invention. One such benefit allows the annotator to determine when a video clip is paused thereby allowing the viewer more time to read/view the annotation before proceeding (see page 10, lines 5-23 of the present specification). The complete and utter failure to both acknowledge the problem in the prior art or present such a solution/advantage again illustrates how Wistendahl teaches away from the present invention.

In view of the clear lack of teaching in Wistendahl and the obvious manner in which Wistendahl teaches away from the presently claimed limitations, Applicants submit that the present claims are in condition for allowance. Further, the remaining cited references fail to cure the deficiencies of Wistendahl.

Moreover, the various elements of Applicant's claimed invention together provide operational advantages over Wistendahl, Russell, and Gupta. In addition, Applicant's invention solves problems not recognized by Wistendahl, Russell, and Gupta.

Thus, Applicant submits that independent claims 1, 9, and 17 are allowable over Wistendahl, Russell, and Gupta.

C. Dependent Claims 7, 15, and 23 Are Patentable Over the Cited Art

As stated above, these claims provide that the annotation information is defined in conformance with an XML schema. Accordingly, rather than merely abstractly citing the use of XML, these claims specifically provide that the annotation information is defined in XML. Further, the independent claims are all very specific in defining annotation information. In this regard, annotation information consists of an identification of a frame, an annotation, and a location on the identified frame to display the annotation. Claims 7, 15, and 23 provide that all of these elements must be in compliance with an XML schema.

In rejecting these claims, the Office Action relies on Gupta. However, Gupta merely mentions the use of XML. In this regard, Gupta fails to describe the defining of an annotation using XML. In addition, Gupta fails to provide for the use of XML to define each of the annotation information elements as set forth in the claims.

In addition, Gupta fails to teach, describe, or suggest, implicitly or explicitly, the capability to automatically pause a display of a video clip/stream at a particular frame, display an annotation at a particular location on the particular frame, and then continue displaying when the user elects to proceed. Instead, Gupta merely describes the ability to annotate a presentation and the ability to specify a particular time range in the video clip during which an annotation is displayed (see col. 8, lines 10-37). In this regard, Gupta fails in at least one benefit of the present invention which allows the annotator to determine when a video clip is paused thereby allowing the viewer more time to read/view the annotation before proceeding (see page 10, lines 5-23 of the present specification). Thus, Gupta does not provide the capability for an automatic determination and pausing of a video clip at an annotated location (as claimed).

In view of the above, Applicant respectfully requests reconsideration of the rejection of these dependent claims and submit that they are in condition for allowance.

VIII. Conclusion

Thus, Applicant submits that independent claims 1, 9, and 17 are allowable over Wistendahl, Russell, and Gupta. Further, dependent claims 2-8, 10-16, and 18-24 are submitted to be allowable over Wistendahl, Russell, and Gupta in the same manner, because they are dependent on independent claims 1, 9, and 17, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-8, 10-16, and 18-24 recite additional novel elements not shown by Wistendahl, Russell, and Gupta.

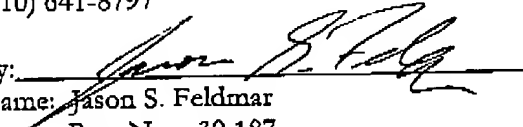
In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

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